JOURNAL OF DENTISTRY

Volume 4 Numbers 1–6 January–November, 1976

Editor:
R. I. NAIRN, MSc, FDS RCS

Editorial Advisers:
DONALD D. DERRICK, DDS, LDS RCS
G. R. SEWARD, MDS, FDS RCS, MB BS

Editorial Board:
D. J. ANDERSON, BDS, MSc, PhD, LDS RCS
R. A. CAWSON, MD, BDS, FDS RCS and RCPS, MRCPath
M. P. COPLANS, MB BS, FFA RCS
R. W. FEARNHEAD, DSc, MDS
H. W. PREISKEL, MSc, MDS, FDS
C. E. RENSON, BDS, PhD, DDPH, LDS RCS
D. S. SHOVELTON, BSc, BDS, FDS RCS

BRISTOL: JOHN WRIGHT & SONS LTD

© JOHN WRIGHT & SONS LTD, 1976
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the Copyright owner.

Printed in Great Britain by Henry Ling Ltd
a subsidiary of John Wright & Sons Ltd
at the Dorset Press, Dorchester

CONTENTS OF VOLUME 4

NUMBER 1

The quest for a new impression rubber — *Michael Braden* — 1
Vertical relationships of edentulous jaws during swallowing — *W. R. E. Laird* — 5
A sphere compression test for measuring the mechanical properties of dental composite materials — *R. J. Verrall* — 11
A denture-copying technique when providing replacement dentures — *J. Grant Robinson* — 15
Some physical properties of four resilient lining materials — *C. Suchatlampong, E. H. Davies and J. A. von Fraunhofer* — 19
The 'solubility and disintegration' test for zinc phosphate dental cements: the use of small specimens — *A. D. Wilson, G. Abel and B. G. Lewis* — 28
Hydrocryl: an aid to retention? — *A. S. Hargreaves and M. A. Foster* — 33
Congenitally missing third molars in a British population — *D. L. Shinn* — 42
Book Reviews — 45

NUMBER 2

Dental materials: 1974 literature review Part I — *N. E. Waters (Editor)* — 51
Adult hypodontia: a method of rehabilitation — *D. M. Menezes and R. M. Basker* — 68
Opacities and hypoplasia in the enamel of Burmese children from a low fluoride area — *D. M. Menezes* — 71
The dimensional changes of elastomeric impression materials under various conditions of humidity — *J. W. Bell, E. H. Davies and J. A. von Fraunhofer* — 73
'Molarization' of the mandibular second premolars — *D. A. Lunt* — 83
Studies on polycarboxylates and related cements — *B. W. Bertenshaw and E. C. Combe* — 87
A technique for screening implant materials in the rat — *N. G. Subhiyah and A. A. Grant* — 91
Book Reviews — 99

NUMBER 3

Dental materials: 1974 literature review Part II — *N. E. Waters (Editor)* — 101
The position of the gingival margin as expressed by clinical crown height in children aged 6–16 years — *A. Volchansky and P. Cleaton-Jones* — 116
Psoriatic arthritis and the temporomandibular joint — *G. Stewart Blair* — 123
Surgical emphysema following a simple conservation procedure: a case report — *F. J. Fisher* — 129
An *in vitro* assessment of the retentive behaviour of fissure sealants — *T. Low and J. A. von Fraunhofer* — 131
A cross-sectional longitudinal survey into the durability of amalgam restorations — *C. L. B. Lavelle* — 139
The lost tooth — *P. G. McAndrew* — 144
Book Reviews — 147

CONTENTS

NUMBER 4

Serum hepatitis and the dental surgeon — *W. Sims* — 151
Characterization of glass-ionomer cements — *S. Crisp, B. G. Lewis and A. D. Wilson* — 162
Down's syndrome: aspects of dental care — *Crispian Scully* — 167
The effect of complete dentures on the development of speech articulation in children — *Ann C. Mitchell and A. A. Grant* — 175
Stress relaxation studies on dental materials — *J. M. Paddon and A. D. Wilson* — 183
Matrices for the acid-etch and composite technique — *Graham J. Roberts* — 190
Book Reviews — 195

NUMBER 5

Microleakage: a review — *Edwina A. M. Kidd* — 199
The prevalence of failure of restorations: a literature review — *R. J. Elderton* — 207
A radio-opaque denture material — *J. F. McCabe and H. J. Wilson* — 211
Caries prevention in first permanent molars by fissure sealing — *J. F. Higson* — 218
The clinical assessment of deep carious lesions — *F. J. Fisher* — 223
Ewing's sarcoma of the mandible — *Sher Singh Sidhu, H. Parkash and G. L. Subherwal* — 227
The timing of tooth emergence in four population samples — *C. L. B. Lavelle* — 231
Neurilemmomas in the oral cavity — *K. Swangsilpa, J. E. Winther and L. Nybroe* — 237
Book Reviews — 242

NUMBER 6

Soft lining materials: their status and prospects — *P. S. Wright* — 247
The causes of failure of restorations: a literature review — *R. J. Elderton* — 257
Utilization of a dilacerated incisor tooth as its own space maintainer — *A. Becker, N. Stern and Z. Zelcer* — 263
Symptoms of mandibular dysfunction in complete denture wearers — *Gunnar E. Carlsson* — 265
Monitoring mastication — *David M. Watt* — 271
The clinical assessment of two adhesive composite resins — *John P. Brown and John C. Keys* — 279
The pain dysfunction syndrome. Why females? — *J. P. Smith* — 283
Characterization of glass-ionomer cements — *S. Crisp, B. G. Lewis and A. D. Wilson* — 287
Dentures for a severe Class III jaw relationship — *J. B. Hallam* — 291
Index — 293

Journal of Dentistry, 4, No. 6, 1976, pp. 293–296, *Printed in Great Britain*

INDEX

Volume 4 Numbers 1–6 January–November 1976

Abel G.: *see* Wilson A. D. jt auth.
Acid-etch and composite technique, matrices for, 190
Amalgam restorations, cross-sectional longitudinal survey into durability of, 139
Arthritis, psoriatic, and temporomandibular joint, 123
Articulation, speech, effect of complete dentures on development of, in children, 175

Basker R. M.: *see* Menezes D. M. jt auth.
Becker A., Stern N. and Zelcer Z.: Utilization of a dilacerated incisor tooth as its own space maintainer, 263
Bell J. W., Davies E. H. and von Fraunhofer J. A.: The dimensional changes of elastomeric impression materials under various conditions of humidity, 73
Bertenshaw B. W. and Combe E. C.: Studies on polycarboxylates and related cements, 87
Blair G. S.: Psoriatic arthritis and the temporomandibular joint, 123
Book Reviews (*see* Reviews)
Braden M.: The quest for a new impression rubber, 1
Brown J. P. and Keys J. C.: The clinical assessment of two adhesive composite resins, 279

Caries prevention in first permanent molars by fissure sealing, 218
Carious lesions, deep, clinical assessment of, 223
Carlsson G. E.: Symptoms of mandibular dysfunction in complete denture wearers, 265
Cement(s), glass-ionomer, characterization of, 162, 287
  polycarboxylates and related, studies on, 87
  zinc phosphate dental, 'solubility and disintegration' test for: use of small specimens, 28
Class III jaw relationship, severe, dentures for, 291
Cleaton-Jones P.: *see* Volchansky A. jt auth.
Combe E. C.: *see* Bertenshaw B. W. jt auth.
Composite materials, dental, sphere compression test for measuring mechanical properties of, 11
  resins, two adhesive, clinical assessment of, 279
Compression test, sphere, for measuring mechanical properties of dental composite materials, 11
Congenitally missing third molars in British population, 42
Crisp S., Lewis B. G. and Wilson A. D.: Characterization of glass-ionomer cements, 162, 287
Crown height, clinical, position of gingival margin as expressed by, in children aged 6–16 years, 116

Davies E. H.: *see* Bell J. W. jt auth., Suchatlampong C. jt auth.
Deep carious lesions, clinical assessment of, 223
Dental cements, zinc phosphate, 'solubility and disintegration' test for: use of small specimens, 28
  composite materials, sphere compression test for measuring mechanical properties of, 11
  materials: 1974 literature review. Part I, 51
  materials: 1974 literature review. Part II, 101
  materials, stress relaxation studies on, 183
  surgeon, serum hepatitis and, 151
Denture(s), complete, effect of, on development of speech articulation in children, 175
  material, radio-opaque, 211
  for severe Class III jaw relationship, 291
  wearers, complete, symptoms of mandibular dysfunction in, 265
Denture-copying technique when providing replacement dentures, 15
Dilacerated incisor tooth, utilization of, as its own space maintainer, 263
Down's syndrome: aspects of dental care, 167

Edentulous jaws, vertical relationships of, during swallowing, 5

Elastomeric impression materials, dimensional changes of, under various conditions of humidity, 73
Elderton R. J.: The causes of failure of restorations: a literature review, 257
Elderton R. J.: The prevalence of failure of restorations: a literature review, 207
Emergence, tooth, timing of, in four population samples, 231
Emphysema, surgical, following simple conservation procedure: case report, 129
Enamel, opacities and hypoplasia in, of Burmese children from low fluoride area, 71
Ewing's sarcoma of mandible, 227

Failure of restorations, causes of: literature review, 257
of restorations, prevalence of: literature review, 207
Fisher F. J.: The clinical assessment of deep carious lesions, 223
Fisher F. J.: Surgical emphysema following a simple conservation procedure: a case report, 129
Fissure sealants, *in vitro* assessment of retentive behaviour of, 131
sealing, caries prevention in first permanent molars by, 218
Fluoride area, low, opacities and hypoplasia in enamel of Burmese children from, 71
Foster M. A.: *see* Hargreaves A. S. jt auth.
von Fraunhofer J. A.: *see* Bell J. W. jt auth., Low T. jt auth., Suchatlampong C. jt auth.

Gingival margin, position of, as expressed by clinical crown height in children aged 6–16 years, 116
Glass-ionomer cements, characterization of, 162, 287
Grant A. A.: *see* Mitchell A. C. jt auth., Subhiyah N. G. jt auth.

Hallam J. B.: Dentures for a severe Class III jaw relationship, 291
Hargreaves A. S. and Foster M. A.: Hydrocryl: an aid to retention?, 33
Hepatitis, serum, and dental surgeon, 151
Higson J. F.: Caries prevention in first permanent molars by fissure sealing, 218
Hydrocryl: aid to retention?, 33
Hypodontia, adult: method of rehabilitation, 68
Hypoplasia, opacities and, in enamel of Burmese children from low fluoride area, 71

Implant materials in rat, technique for screening, 91
Impression materials, elastomeric, dimensional changes of, under various conditions of humidity, 73
rubber, new, quest for, 1
Incisor tooth, dilacerated, utilization of, as its own space maintainer, 263

Jaw(s), edentulous, vertical relationships of, during swallowing, 5
relationship, severe Class III, dentures for, 291

Keys J. C.: *see* Brown J. P. jt auth.
Kidd E. A. M.: Microleakage: a review, 199

Laird W. R. E.: Vertical relationships of edentulous jaws during swallowing, 5
Lavelle C. L. B.: A cross-sectional longitudinal survey into the durability of amalgam restorations, 139
Lavelle C. L. B.: The timing of tooth emergence in four population samples, 231
Lewis B. G.: *see* Crisp S. jt auth., Wilson A. D. jt auth.
Lining materials, four resilient, some physical properties of, 19
materials, soft: their status and prospects, 247
Low T. and von Fraunhofer J. A.: An *in vitro* assessment of the retentive behaviour of fissure sealants, 131
Lunt D. A.: 'Molarization' of the mandibular second premolars, 83

McAndrew P. G.: The lost tooth, 144
McCabe J. F. and Wilson H. J.: A radio-opaque denture material, 211
Mandible, Ewing's sarcoma of, 227
Mandibular dysfunction, symptoms of, in complete denture wearers, 265
second premolars, 'molarization' of, 83
Mastication, monitoring, 271
Matrices for acid-etch and composite technique, 190
Mechanical properties of dental composite materials, sphere compression test for measuring, 11
Menezes D. M.: Opacities and hypoplasia in the enamel of Burmese children from a low fluoride area, 71
Menezes D. M. and Basker R. M.: Adult hypodontia: a method of rehabilitation, 68
Microleakage: review, 199

Mitchell A. C. and Grant A. A.: The effect of complete dentures on the development of speech articulation in children, 175
'Molarization' of mandibular second premolars, 83
Molars, congenitally missing third, in British population, 42
first permanent, caries prevention in, by fissure sealing, 218

Neurilemmomas in oral cavity, 237
Nybroe L.: *see* Swangsilpa K. jt auth.

Opacities and hypoplasia in enamel of Burmese children from low fluoride area, 71

Paddon J. M. and Wilson A. D.: Stress relaxation studies on dental materials, 183
Pain dysfunction syndrome. Why females?, 283
Parkash H.: *see* Sidhu S. S. jt auth.
Polycarboxylates and related cements, studies on, 87
Premolars, mandibular second, 'molarization' of, 83
Psoriatic arthritis and temporomandibular joint, 123

Radio-opaque denture material, 211
Replacement dentures, denture-copying technique when providing, 15
Restorations, amalgam, cross-sectional longitudinal survey into durability of, 139
causes of failure of: literature review, 257
prevalence of failure of: literature review, 207
Retention, aid to: Hydrocryl?, 33
Reviews:
Child dental health, 2nd ed. (P. J. Holloway and J. N. Swallow), 196
Children's dental health in England and Wales 1973 (ed. J. E. Todd), 45
Colour atlas of oral histopathology (E. A. Marsland and R. M. Browne), 48
Dental evidence. A handbook for police (I. A. Gladfelter), 198
Dental hygienist 'mock' national board (E. E. Levy), 148
Dimensions of dental hygiene, 2nd ed. (ed. P. F. Steele), 47
Edgewise (E. W. Renfroe), 46
Essentials of dental radiography for dental assistants and hygienists (W. R. de Lyre), 48
Essentials of periodontology and periodontics, 2nd ed. (T. MacPhee and G. Cowley), 100
Fundamentals for maxillofacial prosthetics (ed. O. E. Beder), 195
Improving dental practice through preventive measures, 3rd ed. (ed. J. L. Bernier and J. C. Muhler), 149
Laboratory procedures for inlays, crowns and bridges (D. Stananought), 243
Law and ethics in dentistry (Dental Practitioner Handbook No. 19) (J. Seear), 149
Legal aspects of dental practice (G. Forbes and A. A. Watson), 49
Manual of minor oral surgery. A step by step atlas (H. Birn and J. E. Winther), 150
The maxillary sinus and its dental implications (Dental Practitioner Handbook No. 18) (H. C. Killey and L. W. Kay), 244
Mouth rehabilitation. Clinical and laboratory procedures. Vols 1 and 2, 2nd ed. (ed. M. Kornfield), 99
Notes on dental materials, 2nd ed. (E. C. Combe), 242
Oral anatomy, 6th ed. (H. Sicher and E. L. DuBrul), 196
Orthodontic diagnosis (Dental Practitioner Handbook No. 4), 2nd ed. (W. J. B. Houston), 197
Pediatric occlusal therapy (E. M. Barnett), 147
Periodontics, 3rd ed. (J. D. Manson), 245
Radiographic interpretation for the dentist, 2nd ed. (S. N. Baskar), 148
A textbook of orthodontics (T. D. Foster), 242
The year book of dentistry 1974 (ed. S. B. Finn, M. L. Hale, S. B. Hazen, R. E. Moyers, H. B. G. Robinson and S. I. Silverman), 49
Roberts G. J.: Matrices for the acid-etch and composite technique, 190
Robinson J. G.: A denture-copying technique when providing replacement dentures, 15
Rubber, new impression, quest for, 1

Sarcoma, Ewing's, of mandible, 227
Scully C.: Down's syndrome: aspects of dental care, 167
Sealants, fissure, *in vitro* assessment of retentive behaviour of, 131
Sealing, fissure, caries prevention in first permanent molars by, 218
Serum hepatitis and dental surgeon, 151
Shinn D. L.: Congenitally missing third molars in a British population, 42
Sidhu S. S., Parkash H. and Subherwal G. L.: Ewing's sarcoma of the mandible, 227

Sims W.: Serum hepatitis and the dental surgeon, 151
Smith J. P.: The pain dysfunction syndrome. Why females?, 283
'Solubility and disintegration' test for zinc phosphate dental cements: use of small specimens, 28
Space maintainer, utilization of dilacerated incisor tooth as its own, 263
Speech articulation, effect of complete dentures on development of, in children, 175
Sphere compression test for measuring mechanical properties of dental composite materials, 11
Stern N.: *see* Becker A. jt auth.
Stress relaxation studies on dental materials, 183
Subherwal G. L.: *see* Sidhu S. S. jt auth.
Subhiyah N. G. and Grant A. A.: A technique for screening implant materials in the rat, 91
Suchatlampong C., Davies E. H. and von Fraunhofer J. A.: Some physical properties of four resilient lining materials, 19
Swallowing, vertical relationships of edentulous jaws during, 5
Swangsilpa K., Winther J. E. and Nybroe L.: Neurilemmomas in the oral cavity, 237
Syndrome, Down's: aspects of dental care, 167
pain dysfunction. Why females?, 283

Temporomandibular joint, psoriatic arthritis and, 123
Third molars, congenitally missing, in British population, 42
Tooth emergence, timing of, in four population samples, 231
lost, 144

Verrall R. J.: A sphere compression test for measuring the mechanical properties of dental composite materials, 11
Vertical relationships of edentulous jaws during swallowing, 5
Volchansky A. and Cleaton-Jones P.: The position of the gingival margin as expressed by clinical crown height in children aged 6–16 years, 116

Waters N. E. (ed.): Dental materials: 1974 literature review. Part I, 51
Waters N. E. (ed.): Dental materials: 1974 literature review. Part II, 101
Watt D. M.: Monitoring mastication, 271
Wilson A. D., Abel G. and Lewis B. G.: The 'solubility and disintegration' test for zinc phosphate dental cements: the use of small specimens, 28
Wilson A. D.: *see also* Crisp S. jt auth., Paddon J. M. jt auth.
Wilson H. J.: *see* McCabe J. F. jt auth.
Winther J. E. *see* Swangsilpa K. jt auth.
Wright P. S.: Soft lining materials: their status and prospects, 247

Zelcer Z.: *see* Becker A. jt auth.
Zinc phosphate dental cements, 'solubility and disintegration' test for: use of small specimens, 28